



module 229

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Welcome to the two hundred and twenty-ninth module in the *Pharmacy Magazine* Continuing Professional Development Programme, which looks at winter health.

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for this module

GOAL:

To provide an overview of the symptoms, diagnosis and management of cough, cold and flu.

OBJECTIVES:

After completing this module you should be able to:

- List the causes, prevalence and symptoms of cough, cold and flu
- Recognise which symptoms warrant urgent and non-urgent referral
- Explain the self-help measures and OTC products that can relieve symptoms.



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Winter health

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Introduction

At this time of year pharmacies start to see an increasing number of people wanting advice on all kinds of coughs and sniffles. Indeed there is now widespread recognition by Government and the NHS that community pharmacy is exceptionally well placed to meet additional patient demands over the winter period.

This module describes three of the commonest winter ailments – cold, flu and cough – including differential diagnoses and how these conditions should be managed using OTC and POM products and self-help measures. The module also outlines

the evidence base that supports these interventions.

There is a certain amount of overlap between the

three illnesses – for example, a cough is often a feature of a cold – but, as a starting point, it is useful to consider the definition, prevalence and symptoms of each condition.

The common cold

The term “common cold” is widely used to describe an upper respiratory tract infection of viral origin. Many different viruses can cause a cold, most commonly the rhinovirus, although coronaviruses, influenza viruses, the respiratory syncytial virus and parainfluenza viruses also make a significant contribution – and infection

with more than one virus at a time is not unknown. Even colds that stem from a rhinovirus infection are not straightforward, as there are over 100 subtypes of this micro-organism. This complexity means that finding a cure for the common cold has so far proved elusive.

The causative virus influences how a cold is transmitted, but the commonest routes are droplet transmission and direct contact with an infected



person's skin or a shared object, which leads to auto-inoculation via the nose or eyes.

Cold sufferers may remain infectious for several weeks, with children in particular acting as reservoirs because of their lack of antibodies, capacity to shed viruses for longer and in higher concentrations, and close contact with other children as well as adults.

This last factor is probably the reason that colds are commoner in children than adults, with nursery and primary school children averaging three to eight colds a year compared to two to four in adults. There are nonetheless exceptions, with some unlucky individuals suffering considerably more colds than average and others escaping altogether.

Incidence is at its highest during the winter months, for which various theories have been proposed, including people clustering indoors due to the weather being colder. However, it is perhaps surprising that there is no widely accepted explanation for this trend.

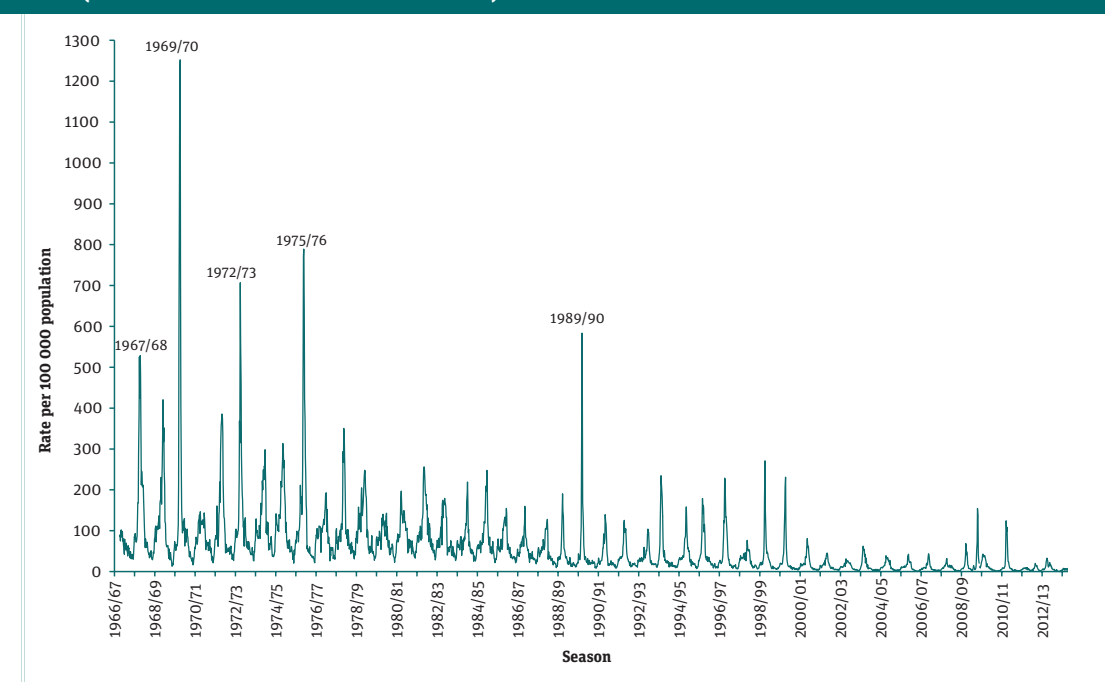
The symptoms of a cold have an abrupt onset and usually include general malaise, sneezing, nasal congestion and discharge, and throat symptoms such as cough, soreness and hoarseness. After two or three days, symptoms are at their peak and then they usually start to diminish, although it is unusual for them to disappear completely within a week.

Cough is the symptom that tends to last the longest and predictably tends to be more severe and prolonged in those who smoke. Other signs of a cold, although less common, may include fever, headache, myalgia, loss of taste and smell, and a feeling of pressure in the ears, sinuses or behind the eyes due to mucosal swelling.

Colds are generally self-limiting, but secondary bacterial infection can occur. The sheer number of colds that occur can make it seem that these complications are very common, but it is, in fact, only a minority who develop such problems.

In adults and older children, sinusitis is the commonest complication, although lower respiratory infections such as acute bronchitis and pneumonia can also occur, particularly in the elderly, smokers and individuals who are either immunocompromised or who suffer from a respiratory condition such as asthma or COPD.

RCGP influenza-like illness consultation rate, 1966-2014 (Year marked at start of season i.e. week 40)



In younger children, acute otitis media follows some 20 per cent of cold cases, while in babies and infants, bronchiolitis, pneumonia and croup are the commonest secondary conditions. Regardless of age, anyone who has asthma may find that it worsens and leads to exacerbations.

Influenza

Like the common cold, influenza is an acute viral infection affecting the respiratory system. There are three types of influenza viruses – A, B and C – all of which can cause seasonal flu, although there are subtle differences:

- Influenza A occurs more frequently, probably because it is highly contagious, and is the strain responsible for most major epidemics and pandemics
- Influenza B generally causes less severe symptoms in adults, although in children there is little to distinguish between types A and B in terms of severity of symptoms. It is less likely than influenza A to be the strain responsible for outbreaks, although is not unknown for having such an impact
- Influenza C causes milder symptoms than the A and B virus strains, and infections are often regarded as colds rather than flu.

Influenza cases start to rise in October and do not diminish until May, with data showing that GP consultations tend to rise from a baseline of fewer than 30 cases per 100,000 population per week to up to 200 per 100,000 per week over a typical winter. According to Public Health England, which monitors flu activity (although the condition is not notifiable), anything over this latter figure indicates an epidemic.

Flu has the same route of transmission as the common cold: droplet or direct contact followed by autoinoculation. Much like those of the cold, symptoms appear suddenly, usually one to four days after exposure, and generally include sore throat, cough and general malaise. However, headache, weakness, fatigue and myalgia are much commoner in flu, and while nasal discharge and sneezing may be present, they are not the defining feature in the same way that they are for the common cold.

A fever usually occurs, although often later than other symptoms, and tends to be more severe in children than adults. Appetite loss and insomnia are also common. Ocular symptoms, most notably photophobia, burning and pain upon eye movements, can also arise, but are more unusual.

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The complications of flu tend to be respiratory in nature: acute bronchitis, pneumonia (which may be primary viral or secondary bacterial in origin), asthma or COPD exacerbations, sinusitis and otitis media. Problems in other body systems may include febrile convulsions, muscle problems, heart failure, myocarditis, toxic shock syndrome, encephalitis, Guillain-Barre syndrome and Reye's syndrome, although most of these are thankfully rare. Complications in pregnant women can include perinatal mortality, premature birth and lower than anticipated birth weight.

Children are more likely than adults to present with complications, most commonly croup, pneumonia and otitis media, although febrile convulsions, vomiting, abdominal pain, diarrhoea and muscular problems can also occur.

Cough

Cough – a reflex response to irritation of the airways, caused by an allergen, foreign body, infection, tumour, secretion or substance such as dust, gas or smoke – may be classified as acute if it has been present for less than three weeks, sub-acute (if it lasts between three and eight weeks), or chronic (if it continues for longer than two months). The duration is often dictated by the cause:

- An acute cough is most commonly caused by an upper respiratory tract infection or respiratory disease exacerbation
- Sub-acute coughs are often the result of a respiratory infection such as pertussis or persistent pneumonia
- Chronic coughs are usually attributable to a smoking-related cause, asthma, chronic bronchitis, rhinitis or sinusitis, gastro-oesophageal reflux disease (GORD) or a reaction to an angiotensin converting enzyme inhibitor (ACEi). Rare causes include lung cancer, pulmonary tuberculosis, pertussis, interstitial lung disease, foreign body aspiration and bronchiectasis.

Because cough is a symptom rather than a condition in its own right, there is little information on prevalence, other than for specific ailments such as pertussis. However it is worth noting that the type of cough may indicate the cause, with dry coughs that are felt in the throat as a tickle often the result of inflammation in the

throat or upper airways, possibly due to an infection such as influenza or the common cold.

A chesty cough that produces phlegm is often indicative of a problem further into the respiratory tract, such as pneumonia or smoking-induced lung damage, or the result of mucus draining into the throat from the nose or sinuses.

When to refer

As innocuous as many winter ailments are, it is vital to be aware of the signs and symptoms that might indicate something more sinister and refer appropriately. The following conditions warrant immediate medical attention:

- Meningitis can have very similar symptoms to flu, particularly in children. Signs that suggest the more serious infection is at play include a non-blanching rash, high fever, vomiting, high-pitched screaming, floppiness, bulging fontanelle, convulsions, stiff neck, photophobia, severe headache and/or confusion



Flu cases will be on the rise this month

- Pulmonary embolism can feature cough as a symptom. It may be accompanied by breathlessness of acute onset, chest pain, haemoptysis, tachypnoea (>20 breaths per minute), tachycardia and chest crackles. It is commoner in individuals who have recently had surgery or a period of immobility, cancer patients and those with a history of DVT
- Pneumothorax can include cough among its symptoms, alongside tachycardia, sudden-



Reflection exercise 1

Are you and your staff clear on the symptoms that should ring an alarm bell if mentioned by a patient with a cough, cold or flu? Do you know where you would refer someone as an emergency or a non-emergency?

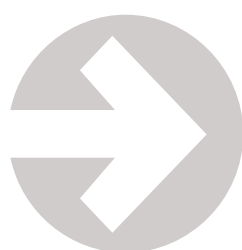
onset chest pain and breathlessness, and can quickly lead to collapse. Risk factors include smoking, respiratory disease, chest wall trauma and previous pneumothorax. It is more likely in adults who are slim, tall and young

- Aspiration of a foreign body can cause a cough to start abruptly and is likely to be accompanied by distress and stridor.

Certain symptoms also warrant emergency admission to hospital. These include a respiratory rate higher than 30 breaths per minute, tachycardia in excess of 130 beats per minute, altered consciousness and significant respiratory effect, particularly if accompanied by exhaustion. Someone who is exhibiting signs of an acute exacerbation of asthma or COPD that they are unable to self-manage should also seek urgent medical attention.

Referral to a GP – rather than accident and emergency – is required if one of the following conditions is suspected:

- Asthma, if it has not previously been diagnosed or appears to be uncontrolled. Signs to look out for are more than one of the following: wheeze, cough, dyspnoea and chest tightness, with symptoms often frequent and recurrent, worse at night and in the early morning, and triggered by exposure to pets, cold or damp air, emotions or exercise. A personal or family history of atopic disease, parental smoking, premature birth or low birth weight and having suffered bronchiolitis in infancy all increase the risk of asthma developing
- COPD symptoms typically include breathlessness upon exertion, chronic productive cough, wheeze and frequent chest problems during the winter months. Exercise intolerance, ankle oedema, fatigue and weight loss may also feature. Prevalence of COPD increases with age, with few cases diagnosed under 50 years
- GORD can present with a persistent cough, but this is generally worse during or after



'Pharmacy teams should not underestimate the impact their words and actions can have in terms of reducing unnecessary trips to GP surgeries and A&E departments'



eating and when bending over and there is no other chest involvement. Other symptoms of dyspepsia such as upper abdominal discomfort, nausea, fullness and belching are also highly likely to present and tend to resolve following antacid use. People who are obese, stressed, pregnant, smoke or have a poor diet are more likely to suffer from GORD

- Pertussis may be the culprit if a cough has lasted more than two weeks and features paroxysms of increasing severity and frequency, vomiting after coughing or the characteristic whooping sound. Those who have been in contact with someone with pertussis over the previous 14 days are at increased risk of developing the condition



Cough duration is often dictated by its cause

- Bacterial pneumonia can follow an upper respiratory tract infection. Cough, which may be productive, is the major symptom and is usually accompanied by fever, myalgia, sweats, wheeze, dyspnoea or chest pain. The elderly are more likely to acquire pneumonia in the community
- Sinusitis that is severe or persistent usually presents with facial pain centred around the cheeks, eyes or forehead. Toothache and fever may also be present, as well as thick yellow or green mucus on blowing the nose. Pre-disposing factors include atopic disease, smoking and immunosuppression

- Glandular fever, sometimes called infectious mononucleosis, can have similar features to a cold with the symptoms of a severe sore throat, fatigue, prolonged fever and enlarged lymph nodes lasting longer than would be expected for a minor ailment. Adolescents and younger adults are more likely to suffer from this condition
- Malaria should be suspected in individuals with flu symptoms who have recently travelled from an area where the parasitic infection is endemic, regardless of whether or not they took prophylactic measures. Symptoms often include fever, which may go in cycles of chills followed by fever spikes and profuse sweating, general malaise, headache, myalgia, diarrhoea, cough and jaundice. Children may also be drowsy, have a sore throat and be experiencing nausea, vomiting and abdominal pain
- Lung cancer may be responsible if someone has a persistent and unexplained cough, and maybe also haemoptysis, chest or shoulder pain, breathlessness, weight loss, hoarseness, finger clubbing and stridor. It is commoner in smokers, COPD patients and individuals who have been exposed to asbestos or have had cancer at another site of the body
- Tuberculosis (TB) usually presents with a cough that lasts for longer than three weeks, which may or may not be productive, and may be accompanied by breathlessness or haemoptysis. Signs of extra pulmonary involvement can include swollen lymph glands in the neck, pain in the bones, joints or back, abdominal pain, chest pain, ankle oedema, confusion, persistent headache, visual disturbances and skin lesions. Risk factors for contracting TB include being born in areas of high prevalence (e.g. south-east Asia, eastern Europe and sub-Saharan Africa), being in close contact with an active TB sufferer, having a compromised immune system, living in close proximity to many other people (e.g. care home residents, prisoners and the homeless), and misusing drugs or alcohol
- Heart failure can present with breathlessness, although it is usually easily distinguishable from winter ailments as it is worse upon exertion, lying flat or waking in the morning. Fatigue and fluid retention are other signs and prevalence increases with age.

Symptom management

Once other more serious conditions have been excluded, most colds, flu and coughs can be effectively managed using self-help measures and OTC products. Reassurance is key, both to allay concerns about the abrupt onset and worsening of symptoms, and to reinforce the fact that although the symptoms may be unpleasant and debilitating, they normally resolve within a week or so with the possible exception of a lingering cough.

Pharmacy teams have an important role to play in this respect and shouldn't underestimate the impact their words and actions can have in terms of reducing unnecessary trips to GP surgeries, out-of-hours services and A&E departments, saving the NHS a considerable amount of time and money.

Self-help measures

Getting plenty of rest and staying well hydrated are the two mainstays of self-care measures, although there is surprisingly little evidence supporting them, probably because they do not lend themselves to scrutiny via randomised controlled trials. Nonetheless, not pushing the body beyond what feels comfortable is a sensible approach – although bed rest is not advised unless the individual is feeling exhausted, as may be the case in flu – as is slightly increasing fluid intake to compensate for the amount lost via nasal discharge and fever-induced sweating.

Various dietary changes and supplement usage hit the headlines every now and then as the best way to stave off or 'cure' a cold or flu, but there is no compelling evidence for this. Echinacea, garlic, vitamin C and zinc have all been the subjects of Cochrane reviews, but only zinc 75mg lozenges have been found to be effective at significantly reducing the duration of a cold, with everything else proving inconclusive. A healthy diet is a sensible approach; however appetite loss is common during winter ailments and is only cause for concern in those who are malnourished or severely underweight.

Smokers may be inclined to quit the habit if they have upper respiratory tract symptoms. However support is particularly important for such individuals, because some of the



Reflection exercise 2

How do you broach the topic of smoking with your customers? Do you wait for them to ask you or is it part of your general conversation. If it isn't already part of your consultations with people requesting advice or product recommendations for winter ailments, think about how to include it, making sure your approach does not make a customer feel judged or ill at ease. Speak to your support staff about it as well.

symptoms of nicotine withdrawal can be similar to those of a cold or flu, which can be discouraging to a would-be quitter.

Providing reassurance that these symptoms should pass within a week or so if the individual stays smoke-free, as well as giving advice on nicotine substitutes and coping strategies, can make all the difference between success and failure when attempting to quit.

OTC products

Simple analgesics such as paracetamol or ibuprofen may be used for headache, myalgia or fever, bearing in mind any contraindications or cautions that may apply. Ibuprofen's slightly longer duration of action means it may be preferable at times when frequent dosing is undesirable (e.g. during the night or at work).

If symptoms of pain or fever are particularly severe, ibuprofen and paracetamol may be used concomitantly, as there is some evidence of increased effectiveness according to a 2013 Cochrane review. However there is little evidence supporting alternating the medicines over combining them and the latter approach can be preferred due to concerns about confusion and accidental overdose. Aspirin and other NSAIDs are not recommended due to the risk of adverse effects. Licensing restrictions may also apply. Paracetamol and ibuprofen in children with fever should not be given simultaneously.

Respiratory symptoms can be tackled using steam inhalation, which loosens mucus and inhibits viral replication. A 2013 Cochrane review concluded there was sound evidence that this intervention worked, but warned of the potential dangers, particularly for young children. To avoid scalds, sitting in a bathroom with the shower running water as hot as possible is a safer option. The BNF states that adding aromatic compounds such as menthol or eucalyptus oil might encourage use of steam inhalations although there is little evidence of additional efficacy. The same is true of vapour rubs containing similar ingredients.

Saline nose drops or sprays can help liquefy mucus secretions, so are another option for nasal congestion and of particular value in infants as they can help feeding. However a 2010 Cochrane review found that a significant proportion of



Simple analgesics such as paracetamol and ibuprofen are best for headache and fever

babies actually did not tolerate saline nasal drops. The same paper stated that, in adults, saline nasal irrigation was safe, although sometimes associated with minor discomfort, but said there was only limited evidence of benefit.

Decongestants can have a role if nasal congestion is a problem. There is some evidence supporting the use of topical sympathomimetics, which work by constricting mucosal blood vessels, reducing oedema and facilitating drainage. However they should only be used for a maximum of five to seven days due to the risk of secondary vasodilation and associated increase in congestion upon stopping (rhinitis medicamentosa).

According to the BNF, ephedrine is considered the safest sympathomimetic, with xylometazoline and oxymetazoline more likely to cause rebound congestion. Despite their topical mode of administration, sympathomimetics can cause hypertensive crisis if used alongside a monoamine oxidase inhibitor such as moclobemide, so care must be taken to check if the patient is on any other medication.

There is little evidence supporting the use of oral decongestants such as pseudoephedrine and phenylephrine, but they are included in many OTC cold remedies and – unlike their locally administered counterparts – are not associated with rebound congestion when stopped. Their sympathomimetic mode of action means they are not suitable for all and should be avoided by individuals taking monoamine oxidase inhibitors. Caution should be exercised before they are recommended in diabetes, hypertension, hyperthyroidism, prostatic hypertrophy, ischaemic heart disease or for individuals susceptible to closed-angle glaucoma.

Pseudoephedrine and ephedrine can be illicitly extracted from the products that contain them for the purpose of manufacturing methylamphetamine (also known as crystal meth), a class A drug. To counter this, 2008 saw the introduction of restrictions that made it illegal to sell or supply any product or combination of products that contain more than 720mg pseudoephedrine or 180mg ephedrine without a prescription, and banned sales of



Reflection exercise 3

Take a look at your shelves, both on the shop floor and on the medicines counter, that are devoted to winter remedies. Is it clear to customers and staff which are suitable for children and which are only for adults? What about the risk of analgesic overdose due to combination products? And the sales restrictions for certain decongestants? How could you make this fixture easier to understand and navigate?



pseudoephedrine and ephedrine in the same transaction.

According to the Medicines and Healthcare products Regulatory Agency (MHRA), awareness of these rules is high among pharmacies and sales are stable. Furthermore, the Association of Chief Police Officers (ACPO) has stated that there is little to suggest that methamphetamine misuse is a problem across the UK. That said, vigilance by pharmacy staff is still important.

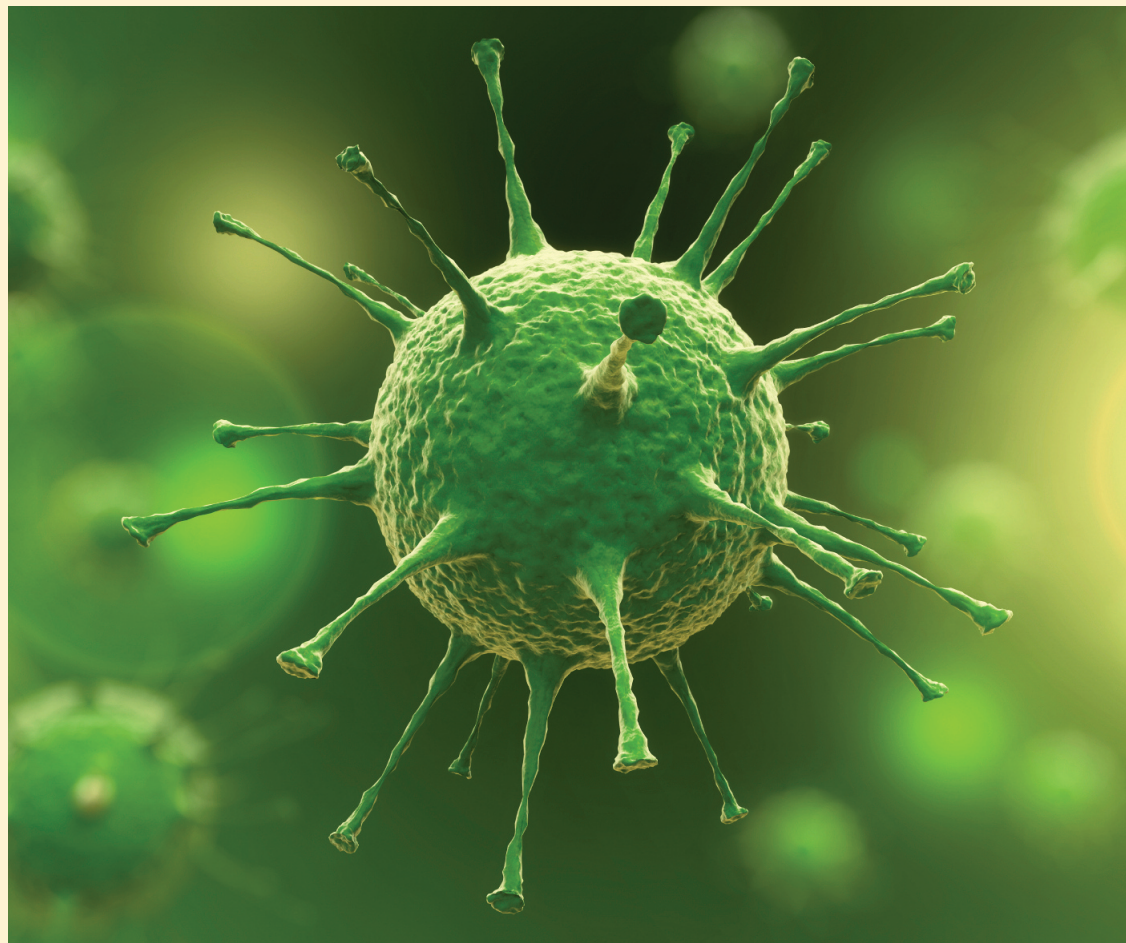
Antihistamines are included in some cold and flu remedies, with the theory being that they help dry up nasal secretions. A 2012 Cochrane review found that sedating antihistamines were most effective when combined with a decongestant, probably due to their anti-cholinergic effect, but side-effects such as drowsiness, dry mouth, insomnia and dizziness could be problematic, and there was no evidence of benefit in young children. There is little if any support for non-sedating antihistamines for the common cold or flu.

Cough preparations

Cough medicines are relied upon by many, but a 2012 Cochrane review concluded that there was no good evidence either for or against their use. The commonest ingredients of 'chesty' cough medicines are expectorants such as ipecacuanha, guaifenesin and squill. Cough suppressants form the mainstay of products for 'dry' coughs, namely opioids such as pholcodine, codeine and dextromethorphan.

Sedating antihistamines may also be used for cough and are thought to exert their action via inducing drowsiness. Many cough medicines contain a demulcent, such as glycerol, honey or syrup, to soothe the throat. While such products are both cheap and harmless – although the sugar content may be of concern, particularly to patients with diabetes – there appears to be little scientific research to support their use.

The MHRA has stated that OTC cough and cold products containing cough suppressants or expectorants, antihistamines or decongestants should not be used at all in children under six years of age. They may only be considered for children aged six to 12 years if other measures have been tried, but treatment should be



The influenza A virus is the strain responsible for most major epidemics

minimised and certainly not exceed five days. A notable exception is codeine-containing cough medicines, which should not be used by anyone aged under 18 years.

Antibiotics are of little use for the common cold, flu and the vast majority of coughs, as they are viral rather than bacterial in origin. A Cochrane review of 2013 stated that prescribing them can actually cause patients harm because of the risk of adverse effects.

The message that antibiotics are ineffective for many winter ailments is one that has been at the centre of public health campaigns for several years, but it is as well to be prepared to deal with enquiries from patients who think otherwise.

Many preparations marketed for the treatment of winter ailments contain more than one ingredient and it is worth remembering to draw attention to the active components when selling them as a way of highlighting the risk of accidental overdose. It is also sensible to reinforce the correct dosing and the risk of adverse effects if the recommendations are exceeded, as patients may be tempted to "overdo it" as a way of combatting hard-to-shift symptoms.

The role of antivirals

Antivirals are licensed for influenza and can reduce the severity of the illness, but may only be used in primary care if the following apply:

- National surveillance indicates that flu is circulating
- The individual with influenza is considered "at risk" of suffering a worse prognosis than would normally be the case (see later)
- They are able to start taking the antiviral within 48 hours of symptoms starting (36 hours in the case of zanamivir for children).

People in 'at risk' groups include the following:

- Individuals over 65 years of age
 - Women who are pregnant or a maximum of two weeks post-partum
 - Patients with chronic respiratory, cardiac, neurological, renal or hepatic disease
 - People with diabetes mellitus
 - Those with a BMI equal to or above 40.
- People who are immunosuppressed are also considered at risk. They include the following:
- Severe primary immunodeficiency
 - Current or recent (within six months) chemotherapy or radiotherapy treatment for cancer



Reflection exercise 4

Find out what the local arrangements are in your area for the provision of antivirals in the case of a flu epidemic. It is important to understand where pharmacy sits within these plans and how the system works.

Reflection exercise 5

Whether or not you run a flu vaccination service, pharmacies have an important role to play in highlighting the groups of patients who are eligible for free immunisation on the NHS. Check whether you have materials that clearly display this information to customers in your pharmacy.

- Solid organ transplant recipients on immunosuppressive therapy
- Bone marrow transplant recipients on current or recent (within 12 months) immunosuppressive treatment
- Anyone on systemic corticosteroids at a dose equivalent to or higher than 40mg prednisolone per day for more than one week in adults or 2mg per kg per day for over a week in children, or who has been on such treatment during the previous three months
- Patients currently or recently (within six months) on immunosuppressive therapy
- HIV infected patients with severe immunosuppression.

Of the antivirals available, oral oseltamivir is usually the drug of choice, although inhaled zanamivir is preferred for individuals who are both immunosuppressed and in an 'at risk' group. Zanamivir may also be used if there is a poor response to oseltamivir or gastrointestinal absorption is inadequate. A five-day course is usually sufficient, although 10-day courses are the norm for post-exposure prophylaxis.

Prevention

Transmission of winter ailments is unavoidable, but can be limited if good hygiene measures are adhered to. Anyone who has symptoms of flu or a cough or cold should wash their hands frequently and thoroughly with hot water and soap and not share towels or toys, as these provide surfaces on which germs can linger.

Likewise, someone who comes into contact with another person who has symptoms should wash their hands carefully afterwards, and it is

sensible for those who are susceptible to winter ailments and their complications to discourage visitors who have symptoms of a cold or flu.

A common sense approach should be adopted in terms of attendance at work or school: unlike some other conditions such as diarrhoea and vomiting, if the individual feels up to it, there is no compelling reason to not go in. However, if someone feels very unwell and is coughing and sneezing a lot, staying away shows consideration for others and provides the sufferer with some time to rest and recover.

Hand sanitising products are popular, but while there is evidence supporting their activity against some viruses, including those implicated in colds and flu, research into their effectiveness in community settings is conflicting.

Certain studies have shown alcohol hand rubs reduce absenteeism due to respiratory illness, but others have found such products to have no impact. Given the limited transmission of winter bugs via direct contact, the latter is probably nearer the mark. Still, if soap and water are not available, and hands are not visibly dirty or greasy, they can be a useful hygiene measure and are not associated with increased microbial resistance.

Although toxicity can be an issue for children and those who put their minds to deliberately ingesting or abusing alcohol-containing products, alcohol-based hand sanitisers are generally considered safe.

The one winter condition that can be immunised against is flu. However, by this time of year (November), the majority of people who are eligible under annual Government programmes – over 65s, pregnant women, children aged 2-4 years old, school-aged children in pilot areas, residents of long-stay care homes, carers, frontline health and social care workers, and individuals in clinical risk groups – should have already been immunised.

Anyone who has missed out can still be vaccinated, although they should be advised that the immune response takes around two

weeks to fully develop. Many immunisation providers, pharmacies included, are able to provide vaccinations on a private basis to individuals not eligible under the national programme.

Summary

Ailments such as cough, cold and flu are among the commonest reason for customers to visit a pharmacy during the winter months and this is only set to rise as the Pharmacy First message continues to permeate public consciousness.

Although these conditions are generally self-limiting and symptoms will resolve within a week or so without any intervention, pharmacists and their staff have a valuable role to play in providing reassurance, giving advice on self-help measures and recommending appropriate and safe OTC products.

Pharmacies also have an important function to perform in providing – or signposting to – services that can benefit this customer group, from flu immunisation to stop smoking schemes. Getting it right will not only increase the chances of a customer returning in the future, but also raise the profile of the sector as a whole.

Useful websites

- NHS Choices: www.nhs.uk
- Cardiff University's Common Cold Centre: www.cardiff.ac.uk/biosi/subsites/cold/commoncold.html#2
- Clinical Knowledge Summaries: <http://cks.nice.org.uk>
- Public Health England: www.gov.uk/government/organisations/public-health-england
- US Centers for Disease Control and Prevention: www.cdc.gov
- The Cochrane Library: www.thecochranelibrary.com/details/browse/reviews/579531/Common-cold--cough.html



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WINTER HEALTH

assessment questions

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1. Which statement about the common cold is FALSE?

- a. Sufferers may stay infectious for many weeks
- b. Colds are usually caused by more than one virus at the same time
- c. Symptoms usually peak two to three days after onset
- d. Only a minority of people develop complications after having a cold

2. Which statement about influenza is TRUE?

- a. Anything over 30 cases per 100,000 population per week is considered an epidemic
- b. Eye symptoms such as photophobia and burning are common in flu
- c. Pregnant women who suffer from flu are more likely to have a baby of lower than expected birth weight
- d. Influenza C is usually responsible for epidemics and pandemics

3. Which self-help measure has a sound evidence base?

- a. Staying well hydrated
- b. Zinc lozenges
- c. Vitamin C supplements
- d. Echinacea

4. Which OTC product has good evidence supporting its effectiveness?

- a. Inhaling menthol salts
- b. Pseudoephedrine tablets
- c. Dextromethorphan cough medicines
- d. Using paracetamol and ibuprofen concurrently to combat severe pain or fever

5. Assuming the Government has declared an influenza epidemic, which of the following individuals with early flu symptoms would be considered suitable for antivirals?

- a. An otherwise healthy woman who had a baby 3 weeks ago
- b. An otherwise healthy man who finished his last round of chemotherapy eight months previously
- c. A man on 30mg prednisolone per day for seven days for an asthma exacerbation
- d. A woman who, with a body mass index of 38kg/m², is bordering on being severely obese

6. Which is commoner in a cold than flu?

- a. Headache
- b. Fatigue
- c. Nasal discharge
- d. Fever

7. Which is NOT usually considered a cause of a chronic cough?

- a. Whooping cough
- b. Asthma
- c. GORD
- d. ACE inhibitor therapy

8. Which of the following conditions (which may present in a similar way to a winter ailment) does NOT tend to affect older people?

- a. COPD
- b. Community acquired pneumonia
- c. Heart failure
- d. Pneumothorax

Activity completed. (Describe what you did to increase your learning. Be specific)
(ACT)

Date: _____ Time taken to complete activity: _____

What did I learn that was new in terms of developing my skills, knowledge and behaviours?
Have my learning objectives been met? *
(EVALUATE)

How have I put this into practice? (Give an example of how you applied your learning).
Why did it benefit my practice? (How did your learning affect outcomes?)
(EVALUATE)

Do I need to learn anything else in this area? (List your learning action points.
How do you intend to meet these action points?)
(REFLECT & PLAN)

* If as a result of completing your evaluation you have identified another new learning objective, start a new cycle. This will enable you to start at Reflect and then go on to Plan, Act and Evaluate. This form can be photocopied to avoid having to cut this page out of the module. Complete the learning scenarios at www.pharmacymag.co.uk

ENTER YOUR ANSWERS HERE Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. Once you have completed the answer sheet in ink, return it to the address below together with your payment of £3.75. Clear photocopies are acceptable. **You may need to consult other information sources to answer the questions.**

1.	a. <input type="checkbox"/>	2.	a. <input type="checkbox"/>	3.	a. <input type="checkbox"/>	4.	a. <input type="checkbox"/>	5.	a. <input type="checkbox"/>	6.	a. <input type="checkbox"/>	7.	a. <input type="checkbox"/>	8.	a. <input type="checkbox"/>
	b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>		b. <input type="checkbox"/>
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Name (Mr, Mrs, Ms) _____

Business/home address _____

Town _____ Postcode _____ Tel _____ GPhC/PSNI Reg no.

I confirm the form submitted is my own work (signature) _____

Please charge my card the sum of £3.75 Name on card _____ Visa Mastercard Switch/Maestro

Card No. _____ Start date _____ Expiry date _____

Date _____ Switch/Maestro Issue Number _____

Processing of answers
Completed answer sheets should be sent to Precision Marketing Group, Precision House, Bury Road, Beyton, Bury St Edmunds IP30 9PP (tel: 01284 718912; fax: 01284 718920; email: cpd@precisionmarketinggroup.co.uk), together with credit/debit card/cheque details to cover administration costs. This assessment will be marked and you will be notified of your result and sent a copy of the correct answers. The assessors' decision is final and **no correspondence** will be entered into.